

EFFICIENT MULTI-SYMBOL DEINTERLEAVER

ABSTRACT

Embodiments disclosed herein address the need in the art for an efficient multi-symbol deinterleaver. In one aspect, a plurality of memory banks are deployed to receive and simultaneously store a plurality of values, such as soft decision values determined from a modulation constellation, in accordance with a storing pattern. In another aspect, the storing pattern comprises a plurality of cycles, a selected subset of the plurality of memory banks and an address offset for use in determining the address for storing into the respective memory banks indicated for each cycle. In yet another aspect, the stored values may be accessed in order with a sequentially increasing index, such as an address. Various other aspects are also presented. These aspects have the benefit of allowing multiple symbol values to be deinterleaved in an efficient manner, thus meeting computation time constraints, and conserving power.